

CLAIMS

- 1.- A device for issuing a ticket (1) from a tape reserve for a printing mechanism, such device implementing at least one pair of rolls (2, 3) motorised (4) for driving the ticket (1) between which the latter (1) runs in order to convey it towards an evacuation opening (5) of the mechanism, the implementation of motorised means (4) for driving the rolls (2, 3) being slaved to control means (6), including first control means (7) for issuing the ticket (1) causing the rotation of the driving rolls (2, 3) into a first rotational direction A corresponding to a conveying path A' of the ticket (1) towards the evacuation opening (5) in order to place it into a withdrawal position for the user, and second control means (8) for retracting B' the ticket (1) causing the rotation of the driving rolls (2, 3) into a second rotational direction B opposite to the former, and which are slaved to means of detection (9) of the persisting withdrawal position of the ticket (1) beyond a reference information, characterised in that it includes moreover means (10) for inhibiting second control means (8) whereof the implementation is slaved to means (11) for detecting the moment when the user is taking the ticket (1) in the retracting path B', possibly for negating the loads applied on the ticket (1) respectively by the user and by the rolls (2, 3) driven by the motorised means (4) in the second rotational direction B, such interruption enabling reverse rotation A of the driving rolls (2, 3) for authorising restitution of the ticket (1) notwithstanding prior implementation of the second control means (8) for retracting the ticket (1).
- 25 2.- A device for issuing a ticket according to claim 1, characterised in that the means (11) for detecting the moment when the user is taking the ticket (1) in the retracting path B' are formed by any means of detection of a flatness difference of the ticket (1) between a reference flatness during the retraction thereof and an effective flatness measured of the ticket (1), and/or means of detection of a difference in the rotational speed of the driving rolls (2, 3) between a reference speed and an effective speed measured, and/or means of detection of the presence of the user's hand in close vicinity of the evacuation opening (5).
- 30 3.- A device for issuing a ticket according to any of the previous claims, characterised in that the reverse rotational impulse A of the

driving rolls (2, 3) for the restitution of the ticket (1) is indifferently a passive rotational impulse caused by a traction exerted freely on the ticket (1) by the user, and a positive rotational impulse caused from the implementation of the first control means (7) for driving the rolls (2, 3) in
5 the rotational direction Δ corresponding to the conveying path Δ' of the ticket (1) towards the evacuation opening (5).

4.- A device for issuing a ticket according to the claims 2 and 3, characterised in that the means of detection (11) when the user is taking the ticket (1) in the retracting path are of the means of detection of a
10 difference in the rotational speed of the driving rolls (2, 3) between a reference speed and an effective speed measured, such means of detection (11) being associated with the first control means (7) in order to, if necessary, cause the implementation of the motorised means (4) of the driving rolls (2, 3) in the corresponding rotational direction Δ .

15 5.- A device for issuing a ticket according to claim 4, characterised in that the means of detection (11) of a difference in the rotational speed of the driving rolls (2, 3) are any of the means of detection of a torque difference applied to the rolls (2, 3) between a reference torque and a measured torque and/or means of detection of a difference in the angular
20 velocities of the rolls (2, 3) between a reference angular velocity and an angular velocity measured.

25 6.- A device for issuing a ticket according to claim 5, characterised in that the means of detection (11) of a difference in the angular velocities of the rolls are of optical type including an optic sensor (12) for reading a plurality of marks (13) provided on a disc (14) driven into rotation jointly with any of the rolls (2,3).

30 7.- A device for issuing a ticket according to claim 6, characterised in that the disc (14) is meshed by dint of a pinion (15) on a wheel gear (16) interposed between the motorised means (4) and the roll (2, 3) to which the disc (14) is allocated, the latter (14) including on the edge thereof a plurality of undercuts distributed regularly along the periphery thereof, constituting said marks (13).

35 8.- A method for issuing a ticket (1) by a printing mechanism implementing a device according to claim 1, characterised in that it consists in:

- a) conveying the ticket (1) towards the evacuation opening (5), for emerging outside the latter (5) until withdrawn by the user, such conveying path A' being provided by a rotational impulse of the driving rolls (2, 3) into a first rotational direction A,
- 5 b) detecting the protruding position of the ticket (1) as being possibly persistent beyond a reference information,
- c) retracting if necessary the ticket (1) from a rotational impulse of the rolls (2, 3) in a second rotational direction B opposite to that referenced as A, the first, conveying path A' of the ticket (1) towards the evacuation
- 10 opening (5),
- d) detecting the moment when the user is taking the ticket (1) in the retracting path B',
- e) inhibiting the motorisation (4) of the driving rolls (2, 3) causing the retraction B' of the ticket (1), for authorising the rotation of the driving
- 15 rolls (2, 3) in the reverse direction A to the previous B enabling a conveying path A' of the ticket (1) towards the evacuation opening (5) in view of the restitution thereof.

9.- A method for issuing a ticket (1) according to claim 8, characterised in that the step consisting in detecting when the ticket (1) is taken by the user lies more particularly in detecting a difference in the angular velocities of the rolls (2, 3) between a reference angular velocity and an angular velocity measured extemporaneously.

10.- A method for issuing a ticket (1) according to any of the claims 8 and 9, characterised in that the step consisting in inhibiting the motorisation (4) of the rolls (2, 3) in the second rotational direction B is associated with a motorisation of the rolls (2, 3) in the reverse direction for positive conveying A' of the ticket (1) towards the evacuation opening (5) in view of the restitution thereof.